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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/748,862	12/28/2000	Satoshi Sakamoto	1076.1060(JDH)	6062

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EXAMINER
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ALI, SYED J

ART UNIT	PAPER NUMBER
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2195

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/748,862

Applicant(s)

SAKAMOTO ET AL.

Examiner

Syed J. Ali

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-6,8-11 and 13-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-11 and 13-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 28, 2005 has been entered. Claims 1, 3-6, 8-11, and 13-15 are presented for examination.

2. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

### ***Claim Rejections - 35 USC § 102***

3. **Claims 1, 3-6, 8-11, and 13-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Nageswaran (USPN 5,991,792).**

4. As per claim 1, Nageswaran teaches the invention as claimed, including a method for controlling a plurality of threads that perform parallel processing, the method comprising:

monitoring a number of running threads performing parallel processing and a number of standby threads that are in a standby state for a predetermined time period (col. 3 lines 21-33);

setting a necessary number of standby threads in accordance with the number of running threads during the predetermined time period (col. 3 lines 46-54);

Art Unit: 2195

comparing the number of the standby threads with the necessary number of the standby threads at a predetermined time interval (col. 3 line 55 - col. 4 line 4); and

terminating a number of standby threads exceeding the necessary number when the number of standby threads is greater than the necessary number (col. 3 lines 57-62; col. 4 lines 6-7, 40-49).

5. As per claim 3, Nageswaran teaches the invention as claimed, including the method according to claim 1,

wherein the necessary number includes a maximum number of running threads during a predetermined time period (col. 3 lines 21-26), and

wherein said comparing includes comparing the maximum number of running threads and the number of standby threads (col. 3 lines 54-62).

6. As per claim 4, Nageswaran teaches the invention as claimed, including the method according to claim 1,

wherein the necessary number includes an average number of the number of running threads during a predetermined time period (col. 3 lines 21-26), and

wherein said comparing includes comparing the average number of running threads and the number of standby threads (col. 3 lines 54-62).

7. As per claim 5, Nageswaran teaches the invention as claimed, including the method according to claim 1,

wherein the necessary number includes a product obtained by multiplying the number of running threads during a predetermined time period by a predetermined coefficient (col. 3 lines 29-41), and

wherein said comparing compares the product and the number of standby threads (col. 3 lines 54-62).

8. As per claim 6, Nageswaran teaches the invention as claimed, including a controller for controlling a plurality of threads that perform parallel processing, the controller comprising:

a thread management table storing thread information of the plurality of threads (col. 2 lines 40-42), wherein the thread information includes a number of running threads performing parallel processing (col. 3 lines 24-26) and a number of standby threads that are in a standby state (col. 3 lines 23-24);

a thread management circuit requesting thread generation based on the number of standby threads stored in the thread management table, and requesting a standby thread to run (col. 3 lines 15-21);

a comparison circuit setting a necessary number of standby threads in accordance with the number of running threads included in the thread information (col. 3 lines 46-54), and comparing the number of standby threads with the necessary number (col. 3 lines 57-62); and

a termination circuit terminating a number of standby threads exceeding the necessary number when the number of standby threads is greater than the necessary number (col. 3 lines 57-62; col. 4 lines 6-7, 40-49).

Art Unit: 2195

9. As per claim 8, Nageswaran teaches the invention as claimed, including the controller according to claim 6, wherein the necessary number is a maximum value of running threads during a predetermined time period (col. 3 lines 21-26).

10. As per claim 9, Nageswaran teaches the invention as claimed, including the controller according to claim 6, wherein the necessary number is an average value of running threads during a predetermined time period (col. 3 lines 21-26).

11. As per claim 10, Nageswaran teaches the invention as claimed, including the controller according to claim 6, wherein the necessary number is a product obtained by multiplying the number of running threads during a predetermined time period by a predetermined coefficient (col. 3 lines 29-41).

12. As per claims 11 and 13-15, Nageswaran teaches the invention as claimed, including a computer readable storage medium storing a program for performing the method of claims 1 and 3-5, respectively (col. 4 line 66 - col. 5 line 10).

### ***Response to Arguments***

13. Applicant's arguments with respect to claims 1, 3-6, 8-11, and 13-15 have been considered but are moot in view of the new grounds of rejection.

*Conclusion*


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Syed J Ali whose telephone number is (571) 272-3769. The examiner can normally be reached on Mon-Fri 8-5:30, 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai T An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Syed Ali  
May 17, 2005



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